CURATORIAL NEWSLETTER	DATE: January 19, 1981	NO: 30
	Michael B Duke	
	MICHAEL B. DUKE, ACTING LUNAR SAMPLE CURATOR CURATORIAL BRANCH, SN2, NASA/JSC HOUSTON, TEXAS 77058, 713-483-3274	

BUTLER RESIGNS AS CURATOR

Dr. Patrick Butler, Jr. resigned his position as Curator in order to take a staff position with the National Organization of Women in Washington, D. C. Pat departed on January 2. His curatorship lasted three years, but his contributions to lunar sample curation extended over a ten year period. He was chiefly responsible for the curatorial procedural system which provides for controlled handling of the lunar samples and played a key part in planning and making operable the new curatorial facilities. His efforts have been highly appreciated by NASA and the principle investigators and he will be missed by all. A going-away luncheon was held in Building 31 in which some notable presentations included a gunny sack of rocks from the auditor who did the research (but not the report writing) on curatorial accounting last year; an replica of rock 15455, animated by Stu Nagle, who did the first ever Lunar Rock; and an excerpt from Don Quiote.

Dr. M. B. Duke will be Acting Curator until a new Curator is selected. The Johnson Space Center will issue a formal announcement of the position vacancy toward the end of January, with a selection to be made by the end of February. In addition to the Curatorial position, a new associate curator for lunar samples will be added to the staff.

LAPST AND REQUESTS FOR SAMPLES

The Lunar and Planetary Sample Team (LAPST) met November 20-23, 1980 and recommended allocation of 49 subsamples to 9 principal investigators. The next LAPST meeting will be held in late February. Please transmit sample requests to the Curator no later than February 20 to insure consideration at that meeting. It will be helpful if you include any pertinent schedule information so that appropriate priorities can be set for their preparation.

G. J. (Jeff) Taylor joined LAPST at the November meeting.

CURRENT LAPST CONCERNS

LAPST has several more or less standing subcommittees which reflect current or long term areas of concern. At present, the subcommittees (chairpersons) include: Cores and Soils (Morris), Laboratory and Procedures (Boynton), Highland Initiative (James), Restricted Access Collection (Hohenberg), Cosmic Dust (Macdougall), Public Display and Education (Walker).

Some of the highlighted discussions at the recent meeting included: (1) Review and recommendations of format for a comprehensive revision of lunar core catalogs. An outline and several sections of a catalog of the 60009/10 core were reviewed. A complete draft by R. Fruland will be reviewed at the February meeting; (2) A proposed revision of the soils catalog by T. King was discussed. A draft report complete for at least one soil will ready for review in February; (3) An Indium/silver contamination problem identified by Ed Anders was discussed. Data summarized by C. Simonds suggests that Indium from seals of Apollo rock boxes is the ultimate source of the contamination; however, further investigation of the Indium problem is planned; (4) Additional samples were identified for the Restricted Access Collection, which is intended to isolate samples of special significance or rare features such that future allocations will require appropriate special consideration. For example, pieces with oriental surface documentation may be specially protected whereas other pieces of the same sample will be available for allocation without the special consideration; (5) The Highlands Initiative Apollo 16 Workshop was considered successful. Two more workshops in the summer and fall of 1981 will be held, one on terrestrial analogs to the lunar crust and another on the relation of lunar and asteroided regoliths. The Highlands Initiative Workshops will contribute to the development of a potential future initiative in planetary crustal genesis which would be a comparative planetology endeavor.

COSMIC DUST COLLECTORS

JSC is fabricating a cosmic dust collector system, designed after the successful Ames Research Center Collector used by Don Brownlee to collect cosmic dust in the stratosphere. The collector system will fly on the JSC RB-57 high altitude aircraft, will expose a larger collector for more flight hours than has been possible at Ames, thus substantially increasing the probability of collecting large dust particles. First flights will start in late April if all goes well. A small ultraclean particle handling laboratory has been designed which will be installed in a portion of the old lunar sample facility, vacated by the move to the new curatorial annex.

JSC personnel have visited Brownlee's laboratory at Washington University and plan visits to other laboratories involved in cosmic dust studies to establish basic curatorial procedures. The curator is interested in hearing from interested scientists with respect to potential requirements for cosmic dust investigations that should be incorporated into curatorial operations. First discussions of detailed curatorial procedures will be held with LAPST in February.

APOLLO 16 CATALOG

A massive revision of the Apollo 16 catalog has been completed by Marc Norman and Graham Ryder. Please order now, if you have not done so, by writing to the Curator.

NEW CORE DESCRIPTION

The first dissection of core 15007/8 has been completed. A summary of the stratigraphy is attached to this newsletter.

LAPST MEMBERSHIP

Dr. Charles M. Hohenberg, Chair
Washington University
Laboratory for Space Physics
St. Louis, MO 63130
(314)889-6266 - FTS OPR: 279-4111

Dr. William V. Boynton
University of Arizona
Lunar & Planetary Laboratory
Tucson, AZ 85721
(602)626-3484 - FTS OPR: 762-6011

Dr. Donald E. Brownlee
University of Washington
Astronomy Dept. FM-20
Seattle, WA 98195
(206)543-2888 - FTS: 392-8575

Dr. Odette B. James
U. S. Geological Survey
Dept. of Interior
National Center, Stop 959
Reston, VA 22092
(703)860-6641 - FTS: 860-6641

Dr. I. Douglass Macdougall
Scripps Inst. of Oceanography
Geological Res. Div., A-020
La Jolla, CA 92093
(714)895-5000 - FTS: 452-3294

Dr. Richard V. Morris
NASA Johnson Space Center
SN7/Geochemistry Branch
Houston, TX 77058
(713)483-5874 - FTS: 525-5874

Dr. Friedrich Horz
NASA Johnson Space Center
SN6/Geology Department
Houston, TX 77058
(713)483-5171 - FTS: 525-5171

Dr. Geoffry Taylor
Institute of Meteoritics
University of New Mexico
Albuquerque, NM 87131
277-3041 - FTS: 474-5511

Dr. David Walker
Harvard University
Department of Geology
Hoffmann Laboratory
Cambridge, MA 02138
(617)495-2083 - FTS: 830-2083

CORE SYNOPSIS

Sample Nos. 15008/15007, a double 4 cm diameter drive tube. This core may contain material of interest to petrologists (see SPECIAL SAMPLES, CORE 15007).

Field relationships: Core 15008/7 was taken at Station 2, on the crest of a 10 meter crater (photo NASA S-80-33144) that was approximately 1 1/2 m deep. Station 2 was located on the northeastern flank of St. George Crater, on a 15°-17° slope, approximately 600 m laterally and 80 m uphill from the base of the Apennine Front. St. George is a subdued 2 km crater, and the astronauts noted very little coarse material or boulders near the coring site.

Sample history -- possible contamination or disturbance: Sampling was easy. The double core was pushed almost to the drpth of the lower drive tube (AS15-86-11577), then driven 2" per hammer blow to the full depth possible (AS15-86-11578). The rammer was inserted 6" after sampling. There was no indication of spillage during uncoupling of the drive tubes or placing them into the return container, Sample Collection Bag (SCB) 1. Because the core was returned in a SCB, it was subjected to spacecraft cabin atmosphere for approximately 7 days. The core was placed in dry gN_2 on 10 August, 1971, and has been under such conditions since that time. Initial X-radiography took place on 10 August, 1971, and the double core was stored in the Lunar Curatorial Facility until 31 September, 1979 when it was X-rayed by an improved technique. Both X-radiographs showed a slumped zone of approximately 8 cm at the top of the double core, in 15008. Pre- and post-extrusion measurements indicate the upper part of 15008 was re-compacted during extrusion, by 5.5 cm. Core 15008 was extruded in December 1979, in the new Lunar Curatorial Laboratory; dissection, peeling and impregnation was completed by the end of April, 1980. Core 15008 was extruded in early July, 1980 but processing was delayed by attempts to improve photographic technique.

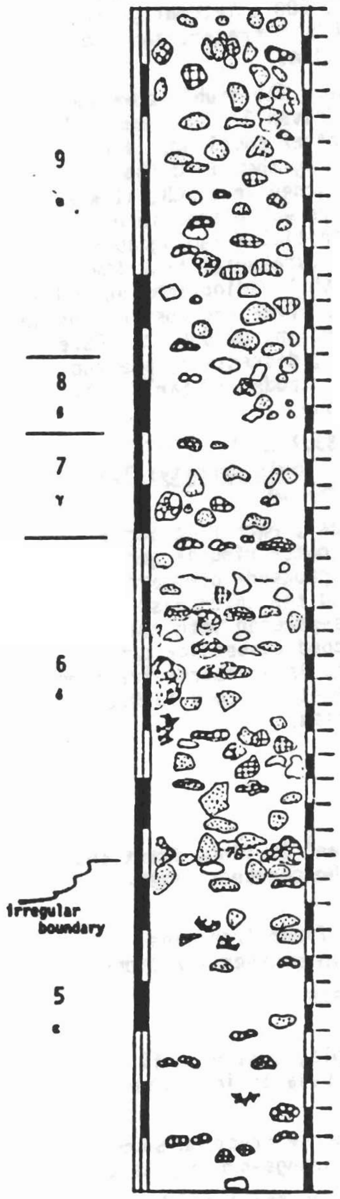
Length (as extruded): 56.8 cm for the double core, with 23.1 cm in 15008, 33.7 cm in 15007. Total mass: 1,278.9 gm (double core), 510.2 gm in 15008, 768.7 gm in 15007. Bulk density: 1.68 (double core) Bulk density of 15008 is 1.65 gm/cm^3; that of 15007 is 1.70 gm/cm^3.

Numbering of samples: Dissection of each core is accomplished in three passes, each removing a longitudinal slice of material 1 cm thick. Before dissection, the smeared outer rind is gently scraped off and packaged separately. Dissection and sample numbering then proceeds downward from the top of the core. During the first pass (splits -,000 through -,999) and the third pass (splits -,2000 through -,2999) samples are passed through a 1mm sieve and separated into coarse and fine fractions. Samples are subject to minimal handling during the second dissection pass (splits -,1000 through -,1999) giving higher chemical purity. Hence, there is no coarse fraction for the second dissection. Because there were many distinctive rock fragments in core 15007, this synopsis includes a special section on parts of the 15007 coarse fraction.

Summary of stratigraphic units identified during dissection:

Unit	Depth	light-dark color	relative grain size	major petrographic components
9 (α)	0 - 6.5 cm	moderately light	moderately fine, bimodal 15% > 1mm	Plagioclase grains are abundant in finer fractions, but soil breccia is prevalent in the coarsest sizes.
8 (β)	6.5 - 8 cm	dark	fine grained 4% > 1mm	Plagioclase brains are abundant in finer fractions, but no one rock type is prevalent in coarser fractions.
7 (γ)	8 - 10 cm	dark	fine grained 7% > 1mm	As 8, but with no obvious soil clasts
6 (δ)	10 - 17.5 cm	marbled light/ dark	coarse 20% > 1mm	Polymict, with abundant droplets, plagioclase, soil breccia, ANT-suite rock fragments, basalts in coarse and fine size fractions.
5 (ε)	17.5 - 36.1 cm	dark drab	fine 5% > 1mm	Dark glassy fines are prevalent; coarse fraction shows glass pavements, rounded clasts of orange-brown glass.
4 (ζ)	36.1- 43.6 cm	dark drab	very fine <3% > 1mm	Fines are dark and glass-rich, coarse fraction shows glass pavements alternating with small ANT fragments.
3 (η)	43.6- 49.1 cm	dark drab	coarse 17% > 1mm	Fines are dark and glass-rich; glass pavements and clumps of large ANT fragments dominate the coarse fraction.
2 (θ)	49.1 - 55.6 cm	light grey and green	coarse > 15%>1mm	This unit is very different from the remainder of the core. Soil contains large irregular clods of green glass, cataclastic anorthosite in darker matrix, ANT rock fragments.
1 (ι)	55.6 - 56.8 cm (base of double core)	neutral grey	coarse 13% > 1mm	Grey matrix holds clasts of sugary anorthosite, dark vesicular glass, mare basalt.

CORE 15008, INTERVAL SAMPLES, FIRST DISSECTION



Distance below lunar surface (linear cm)	Fine < 1mm Fraction Sample No.	Fine < 1mm Fraction Sample Wt(gm)	Coarse > 1mm Fraction Sample No.	Coarse > 1mm Fraction Sample Wt(gm)	Special samples Sample No.	Special samples Sample Wt(gm)	Sample interval	Sample type
0.0	,8	1.566	,9	0.116	,20	0.255	0 - 1 cm	bulk, slumped
0.5	,10	1.694	,11	0.357				
1.0	,12	1.992	,13	0.305				
1.5	,14	1.750	,15	0.530				
2.0	,16	1.770	,17	0.142				
2.5	,18	1.614	,19	0.175				
3.0	,22	2.146	,23	0.210				
3.5	,24	1.803	,25	0.125				
4.0	,26	1.422	,27	0.092	,21	0.163	4 - 5 cm	bulk, slumped
4.5	,28	2.013	,29	0.173				
5.0	,30	2.038	,31	0.125				
5.5	,32	2.004	,33	0.248				
6.0	,34	1.983	,35	0.219				
6.5	,36	2.319	,37	0.055				
7.0	,38	2.146	,39	0.091				
	,40	2.194	,41	0.045				
8.0	,42	2.117	,43	0.064				
8.5	,44	2.047	,45	0.185				
9.0	,46	2.144	,47	0.369				
9.5	,48	2.051	,49	0.068				
10.0	,50	2.278	,51	0.096				
10.5	,52	1.490	,53	0.052				
11.0	,54	2.929	,55	0.087				
11.5	,56	2.104	,57	0.365				
12.0	,58	2.013	,59	0.140				
12.5	,60	2.070	,61	1.353				
13.0	,62	1.942	,63	0.113				
13.5	,64	1.839	,65	0.128				
14.0	,66	2.174	,67	0.335				
14.5	,68	2.461	,69	0.196				
15.0	,70	2.338	,71	0.255				
15.5	,72	1.665	,73	0.263				
16.0	,74	1.896	,75	0.599	,104	0.972	15.5-16.3 cm	large agglutinate
16.5	,76	2.297	,77	0.212	,78	0.021	16.6-16.8 cm	light clast
17.0	,79	2.361	,80	0.437				
17.5	,81	1.914	,82	0.154				
18.0	,83	2.381	,84	0.120				
18.5	,85	2.336	,86	0.045				
19.0	,87	2.067	,88	0.057				
19.5	,89	2.454	,90	0.161				
20.0	,91	2.333	,92	0.070				
20.5	,93	2.674	,94	0.100				
21.0	,95	2.453	,96	0.056				
21.5	,97	2.396	,98	0.139				
22.0	,99	2.236	,100	0.092				
22.5	,101	2.571	,102	0.077				
23.1								

LITHOLOGIC SYMBOLS USED IN COLUMNAR SECTION

- Xtalline rock fragments (basalt, ANT)
- light soil clasts
- oriented vesicular glass particles or clumps
- Xtalline-matrix breccia
- orange-brown glass
- fragmented vesicular glass
- cataclastic anorthosite
- green glass clods
- soil breccia

CORE 15008, INTERVAL SAMPLES, SECOND DISSECTION

Unit	Distance below lunar surface linear cm.	Sample No.	Sample Wt(gm)
	0.0	,1004	1.801
	0.5	,1005	2.707
	1.0	,1006	2.365
	1.5	,1007	2.165
	2.0	,1008	3.686
	2.5	,1009	2.494
9 α	3.0	,1010	2.691
	3.5	,1011	3.429
	4.0	,1012	3.148
	4.5	,1013	2.979
	5.0	,1014	2.959
	5.5	,1015	2.768
	6.0	,1016	2.765
	6.5	,1017	2.796
8 β	7.0	,1018	2.725
	7.5	,1019	2.978
	8.0	,1020	2.576
	8.5	,1021	2.869
7 γ	9.0	,1022	2.617
	9.5	,1023	2.246
	10.0	,1024	3.395
	10.5	,1025	2.319
	11.0	,1026	2.493
	11.5	,1027	2.368
	12.0	,1028	2.218
	12.5	,1029	3.057
6 δ	13.0	,1030	2.683
	13.5	,1031	2.663
	14.0	,1032	2.579
	14.5	,1033	3.316
	15.0	,1034	2.786
	15.5	,1035	2.214
	16.0	,1036	2.380
	16.5	,1037	2.663
	17.0	,1038	3.173
	17.5	,1039	2.810
	18.0	,1040	2.353
5 ε	18.5	,1041	2.829
	19.0	,1042	3.371
	19.5	,1043	2.923
	20.0	,1044	2.925
	20.5	,1045	3.145
	21.0	,1046	2.817
	21.5	,1047	3.391
	22.0	,1048	3.798
	22.5	,1049	2.399
	23.1		

All of the above bulk samples were subject to minimum handling, hopefully producing less contamination.

CORE 15008, INTERVAL SAMPLES, THIRD DISSECTION

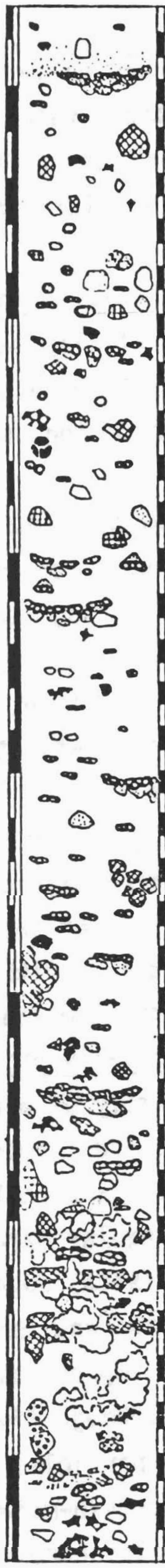
Unit	Distance below lunar surface (linear cm)	Fine (<1mm) fraction Sample No.	Fine (<1mm) fraction Sample Wt(gm)	Coarse (>1mm) fraction Sample No.	Coarse (>1mm) fraction Sample Wt(gm)	Special and unusual samples Sample No.	Sample Wt(gm)	Sample interval	Sample type
	0.0	,2005	1.871	,2006	0.853				
	0.5	,2007	2.016	,2008	0.578				
	1.0	,2009	3.721	,2010	0.796				
	1.5	,2011	2.772	,2012	0.358				
9	2.0	,2013	2.121	,2014	0.822	,2001	0.899	0 - 5.5 cm	rind
	2.5	,2015	2.531	,2016	0.647				
	3.0	,2017	2.093	,2018	0.218				
	3.5	,2019	2.639	,2020	0.734				
	4.0	,2021	2.186	,2022	0.107				
	4.5	,2023	2.413	,2024	0.093				
	5.0	,2025	2.915	,2026	0.364				
	5.5	,2027	2.520	,2028	0.093				
	6.0	,2029	2.799	,2030	0.105				
	6.5	,2031	1.967	,2032	0.087				
8	7.0	,2033	3.501	,2034	0.201				
	7.5	,2035	2.946	,2036	0.089	,2002	0.698	5.5 - 11 cm	rind
7	8.0	,2037	2.649	,2038	0.062	,2039	0.139	8.3 - 8.5 cm	lt. grey clast
	8.5	,2040	2.550	,2041	0.172				
	9.0	,2042	2.751	,2043	0.040				
	9.5	,2044	2.951	,2045	0.324				
	10.0	,2046	2.971	,2047	0.168				
	10.5	,2048	3.420	,2049	0.337				
	11.0	,2050	2.654	,2051	1.378				
	11.5	,2052	2.360	,2053	0.145				
6	12.0	,2054	2.755	,2055	0.141				
	12.5	,2056	2.105	,2057	0.192				
	13.0	,2058	3.015	,2059	1.981				
	13.5	,2060	2.752	,2061	0.232				
	14.0	,2062	2.082	,2063	0.218	,2003	0.681	11 - 16.5 cm	rind
	14.5	,2064	2.818	,2065	0.145				
	15.0	,2066	2.455	,2067	0.149				
	15.5	,2068	2.540	,2069	0.149				
	16.0	,2070	2.145	,2071	0.255				
	16.5	,2072	2.624	,2073	0.319				
	17.0	,2074	2.221	,2075	0.149				
	17.5	,2076	2.999	,2077	0.854				
	18.0	,2078	2.817	,2079	0.345				
	18.5	,2080	2.843	,2081	0.068				
	19.0	,2082	3.054	,2083	0.051				
5	19.5	,2084	2.673	,2085	0.109	,2004	0.571	16.5 - 23.1 cm	rind
	20.0	,2086	3.119	,2087	0.080				
	20.5	,2088	2.897	,2089	0.106				
	21.0	,2090	2.914	,2091	0.076				
	21.5	,2092	2.683	,2093	0.125				
	22.0	,2094	2.695	,2095	0.203				
	22.5	,2096	3.152	,2097	0.136				
	23.1								

Note: Lithologic symbols in the columnar section are explained under the first dissection.

CORE 15007, INTERVAL SAMPLES, FIRST DISSECTION

Unit / Distance below lunar surface (linear cm):

- continued from 16.5 cm in 15008 — 23.1
- 5
- — 36.1
- — 43.6
- 3
- transition — 49.1-49.6
- 2
- transition — 55.1-55.6
- 1 — 56.8



Distance below lunar surface (linear cm)	Fine (< 1mm) fraction Sample No.	Fine (< 1mm) fraction Sample Wt. (gm)	Coarse (> 1mm) fraction Sample No.	Coarse (> 1mm) fraction Sample Wt. (gm)
23.1	,11	1.777	,12	0.029
23.6	,13	1.972	,14	0.072
24.1	,15	2.238	,16	0.075
24.6	,17	2.080	,18	0.131
25.1	,19	1.853	,20	0.042 *
25.6	,22	1.858	,23	0.620
26.1	,24	1.941	,25	0.110
26.6	,26	2.309	,27	0.040
27.1	,28	1.717	,29	0.047
27.6	,30	2.296	,31	0.055 *
28.1	,33	1.827	,34	0.072
28.6	,35	2.216	,36	0.281
29.1	,37	2.493	,38	0.101
29.6	,39	2.689	,40	0.080
30.1	,41	1.944	,42	0.126
30.6	,43	2.119	,44	0.064
31.1	,45	1.846	,46	0.055
31.6	,47	2.212	,48	0.270
32.1	,49	2.303	,50	0.089
32.6	,51	2.377	,52	0.092
33.1	,53	2.219	,54	0.081
33.6	,55	2.181	,56	0.094
34.1	,57	2.157	,58	0.142
34.6	,59	2.190	,60	0.176
35.1	,61	2.202	,62	0.045
35.6	,63	1.893	,64	0.171
36.1	,65	2.200	,66	0.045
36.6	,67	2.248	,68	0.030
37.1	,69	2.158	,70	0.100
37.6	,71	2.238	,72	0.062
38.1	,73	2.310	,74	0.043
38.6	,75	2.409	,76	0.076
39.1	,77	2.105	,78	0.027
39.6	,79	1.998	,80	0.095
40.1	,81	2.256	,82	0.074
40.6	,83	1.997	,84	0.079
41.1	,85	2.118	,86	0.028
41.6	,87	2.315	,88	0.095
42.1	,89	1.992	,90	0.094
42.6	,91	2.224	,92	0.043
43.1	,93	2.193	,94	0.072
43.6	,95	1.851	,96	0.095
44.1	,97	1.849	,98	3.152
44.6	,99	2.555	,100	0.221
45.1	,101	2.205	,102	0.052
45.6	,103	2.008	,104	0.068
46.1	,105	2.309	,106	0.100
46.6	,107	1.956	,108	0.290
47.1	,109	1.923	,110	0.248
47.6	,111	2.553	,112	0.134
48.1	,113	2.124	,114	0.209
48.6	,115	1.855	,116	0.187
49.1	,117	1.658	,118	0.309 *
49.6	,119	2.447	,120	0.222 *
50.1	,125	2.421	,126	0.436 *
50.6	,128	2.068	,129	0.156 *
51.1	,134	2.231	,135	0.366 *
51.6	,137	2.070	,138	0.116 *
52.1	,142	2.144	,143	0.173 *
52.6	,147	2.194	,148	0.076 *
53.1	,150	2.166	,151	0.123 *
53.6	,154	2.274	,155	0.120 *
54.1	,158	2.175	,159	0.102 *
54.6	,162	2.111	,163	0.137 *
55.1	,165	2.522	,166	0.164
55.6	,167	1.699	,168	0.116
56.1	,169	2.582	,170	0.524
56.8				

Total depth after extrusion: 56.8 cm below lunar surface

* additional distinctive material was placed in special samples

LITHOLOGIC SYMBOLS IN COLUMNAR SECTION

- Xtalline rock fragments (basalt, ANT, norite etc.)
- Xtalline-matrix breccia
- Cataclastic anorthosite
- light soil clasts
- orange-brown glass
- green glass clods
- oriented vesicular glass particles or clumps
- fragmented vesicular glass
- soil breccia

15008/7
p. 5 of 8

19 Jan. 1981

SPECIAL SAMPLES, CORE 15007

During the first dissection of core 15007, an unusually large number of distinctive particles with potentially great petrologic value were encountered. These are documented here as to: (1) general classification, (2) location and size of distinctive particles, and (3) comparability to similar lithologies found elsewhere at the Apollo 15 site.

It is emphasized that core observations are limited to the binocular microscope and constitute only a first look at these potentially valuable specimens. More complete identification and classification must be made by PI study. It is hoped that this document will provide enough information to stimulate such interest.

(1) General particle types classified as Special Samples: Three major categories of distinctive particles were found in 15007: (a) green glass, (b) orange-brown glass and (3) ANT suite crystalline rocks, some of which may be pristine samples, according to the definition of Warren and Wasson (1977) PLSC8.

In core 15007, the green glass occurs as mm- to cm-sized, friable clods or clasts that appear to be composed entirely of green droplets; these particles appear to be somewhat different from green glasses in 15426. Differences are discussed under "comparability". Orange-brown glasses occur as mm-sized rounded clasts that appear to contain shattered bomblets or irregular droplets, and are associated with discrete fragments of KREEP basalt. All of the orange-brown glass clasts have a fine-grained battleship grey coating. Although orange in color, these particles appear to be very different from the Apollo 17 orange glasses and should not be equated or confused. Potentially pristine crystallines are 4 - 10 mm rock fragments that consist almost entirely of plagioclase, or are subophitic with approximately equal amounts of mafics and plagioclase. One such particle consisted entirely of yellowish green crystals and could be a dunite. These rock fragments have a fresh appearance, i. e. angular margins and corners, and lack adhering soil. These petrographic characteristics suggest the particles have not undergone an extensive history in the regolith; and the coarse crystalline texture and lack of clasts may indicate these are not impact melts.

(2) Location and size of distinctive particles:Although five discrete lithologic units were seen in core 15007, distinctive particles were found only in units 2 and 5. These units showed a noticeable clast-in-matrix texture in pre-dissection photography, and the distinctive particles were easily extracted and documented. The SPECIAL SAMPLES table shows the location and split numbers of the distinctive particles; additional general data about the core itself

are included elsewhere in the core synopsis.

Green glasses were taken as distinct clasts between 49.1 and 54.6 cm; and range in mass between .005 and .175 gm. Mixtures of green glass and cataclastic anorthosite occur as grey clasts in the same part of the core.

Orange-brown glasses were found almost exclusively in the upper part of the core, between 25.1 and 35.1 cm, and occurred as small (.001 to .008 gm), mm-sized, well rounded clasts in a soil that otherwise contained irregular clasts.

Individual potentially pristine rock fragments range in mass between .008 and .186 gm. Most of these particles are large enough for many types of analyses, but small enough that a sequence of analytical steps must be planned in advance to retrieve the most information. All of these occur between 49.6 and 55.1 cm.

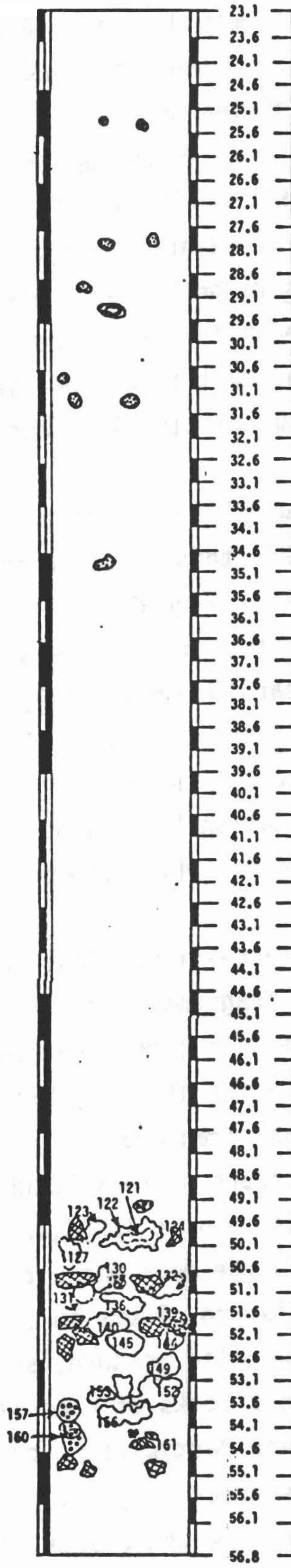
(3) Comparison to similar lithologies:

Green glass: The green glass in core 15007 could have the same range of compositions as green glass in 15425, 15426 and 15427; this needs to be investigated. In mode of occurrence, green glass in 15007 is very different from the station 7 clods. The station 7 clods are glass-rich breccias with a variety of components; the green glass clods in core 15007 appear to contain only green glass. Most of the glass and associated particles in the station 7 clods is shattered and fragmented, whereas the glass in the core appears as entire, unbroken droplets. Some of the green glass in the station 7 clods is partially crystallized, but almost all of the green glass in core 15007 appears to be vitreous and uncrystallized.

Orange-brown glass: The mode of occurrence of orange-brown glass in 15007 is very similar to that of the large orange-brown glass fragment found in core 15010 (sample 15010,3090). Orange-brown glasses from both cores are similar in color, have a similar battleship grey coating, and consist of irregular droplets or bomblets that show an extensive sequence of internal fractures. A similar association of orange-brown glass with KREEP basalt occurs in rock 15205.

Potentially pristine rock fragments: White rocks such as 15007,124 superficially resemble anorthosites such as 15295, and the more mafic crystalline fragments appear, at least on the surface, to be similar to clasts in rocks such as 15445. All of the relatively mafic rocks show subophitic texture, and should be further investigated to determine if they are igneous rocks or coarsely crystalline impact melts. Detailed photography of these particles is currently underway, and a listing of NASA photo numbers for these rock fragments should be available by the time of the Lunar and Planetary Science Conference, 1981.

SPECIAL SAMPLES, FIRST DISSECTION, CORE 15007



Distance below lunar surface (linear cm)	Sample No.	Sample Wt(gm).	Sample Type	Sample No.	Sample Wt(gm).	Sample Type	Sample No.	Sample Wt(gm).	Sample Type
25.1–25.6	,21	.002	orange-brown glass						
27.6–28.1	,32	.005	orange-brown glass						
28.6–29.1	,36	.002	orange-brown glass (in screw cap, packaged with coarse fraction)						
29.1–29.6	,38	.009	orange-brown glass + KREEP basalt (packaged as -,36)						
30.6–31.1	,44	.001	orange-brown glass (in screw cap, packaged with coarse fraction)						
31.1–31.6	,46	.004	orange-brown glass (in screw cap, packaged with coarse fraction)						
34.6–35.1	,60	.008	orange-brown glass + KREEP basalt (packaged as above)						
49.1–49.6	,118	.005	green glass clast (in screw cap, packaged with coarse fraction)						
49.6–50.1	,121	.079	gy. clast 1	,122	.022	clast 1 outer	,123	.067	gn. clast 2
50.1–50.6	,127	.058	gn. clast 3				,124	.186	An. clast
50.6–51.1	,130	.054	gn. clast 4	,131	.040	gy. clast 5	,133	.232	pristine? rocks
51.1–51.6	,136	.056	gy. clast						
51.6–52.1	,139	.213	armored clod	,140	.086	gy. clast 7	,141	.127	pristine? rocks
52.1–52.6	,144	.067	gn. clast 8	,145	.294	gy. clast	,146	.325	pristine? rocks
52.6–53.1	,149	.106	gy. clast						
53.1–53.6	,152	.107	gn. clast 10	,153	.052	An. clast 12			
53.6–54.1	,156	.170	gy. clast 13	,157	.113	gn. clast 14			
54.1–54.6	,160	.175	gn. clast 15	,161	.036	An. clast			
54.6–55.1	,164	.079	pristine? rocks						

Total depth after extrusion: 56.8 cm below lunar surface

Note: Many of the light-colored soil clasts were numbered before dissection; these numbers are found in the Lunar Curatorial Laboratory dissection plan. Clasts without such numbers were uncovered during dissection. Allocations and other subsequent work will use split numbers, that appear here, and not dissection plan numbers.

ADVOCATE LIST FOR 1980 PIs

MINERALOGY AND PETROLOGY

O. JAMES	D. WALKER	F. HÖRZ	J. TAYLOR
Albee	Arnold	Andre (Adler)	El Goresy
Buseck	Goldstein	Basu	Hafner
Hays	Lofgren	Englehardt	Hubbard
Huebner	Meyer	James	Weiblen
Keil	Rutherford	Maurette	
Lindsley (Bence)	Smith	McDonnell	
McKay	Tatsumoto	Papike	
Phinney	Tilton	Ringwood	
Roedder	Wasserburg	Stöffler	
Sato	Weill	Taylor, L.	
Wood		Takeda	

ISOTOPES AND CHEMISTRY / PHYSICAL PROPERTIES

D. BROWNLEE	W. BOYNTON	D. MACDOUGALL	R. MORRIS
Clayton	Anders	Bhandari	Adams
Epstein	Blanchard	Blanford	Ahrens
Geiss	von Gunten	Fireman	Brownlee
Gibson	Haskin	Hohenberg	Dollfus
Heymann	Laul	Lal	Fuller
Kaplan	Morgan	Marti	Hapke
Kirstein	Nyquist	Philpotts	Hörz
Pepin	Reynolds	Pillinger	Housley
Perkins	Schmitt	Signer	Klein
Rhodes	Wanke	Taylor, S. R.	Reed
Thode	Wasson	Tombrello	Schaeffer
		Walker, R.	Simmons
			Strangway
			Turner
			Runcorn

LAPST SUBCOMMITTEES

CORE
R. Morris, Chair
F. Hörz
D. Walker

RESTRICTED ACCESS COLLECTION AND CUTTING PLANS
J. Taylor, Chair
D. Macdougall
O. James
R. Morris

PUBLIC DISPLAYS AND EDUCATION
D. Walker, Chair
O. James
F. Hörz

PROCEDURES AND LABORATORY
W. Boynton, Chair
D. Blanchard (CCO)
D. Macdougall
D. Brownlee
C. Hohenberg

COSMIC DUST
D. Macdougall, Chair
U. Clanton (ex officio)
D. Brownlee
W. Boynton
C. Hohenberg
F. Hörz

HIGHLANDS INITIATIVE
O. James, Chair
C. Hohenberg
F. Hörz
R. Morris
D. Walker